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(54)名 稱: 一種可自動解門之鎖體(一)

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(72)創 作 人:

郭清傳

邱銘祥

賴振文

嘉義縣新港鄉安和村八號

嘉義市美源里新莊八之二十三號

嘉義縣水上鄉水上村店仔後二十一之一號

(71)申 請 人:

東隆五金工業股份有限公司

嘉義市忠孝一街六十二號

(74)代 理 人:

1

2

[57]申請專利範圍:

一種可自動解門之鎖體(一),其主要特徵在於一內把手組之把手與供安裝把手之套盤內設置一解門機構,所述解門機構包括:

一盤狀彈簧,安裝於所述套盤之凹室內而套入所述把手之上,其具有兩端可分別抵觸於所述套盤所設之凸柱上;

一解門板,安裝於所述把手上而與所述之盤狀彈簧相鄰,其周緣分別具有一輻射向向外之凸出面以及兩個軸向設置的第一驅動面、一第二驅動面,所述第一驅動面、第二驅動面分別與所述盤狀彈簧之第一端、第二端鄰靠,使所述之解門板朝凸出面之方向允許微量位移,並維持把手受外力後能恢復並保持原來未使用時之位置;

一驅動板,其中間具有一孔,所述孔可供一轉軸桿插置,並於鄰近所述孔之周圍向外設有至少一弧形槽,所述弧形槽可供所述之把手穿過,並允許所述把手對其具有一小角度的轉動位移量,

並於其周圍設有一凹槽;

一閉鎖桿,係為一桿狀體,具可軸向位移的設置於所述套盤內而與所述驅動板相鄰,其具有一第一端、一第二端,所述之第一端係穿過而突出於所述套盤之外側,所述第二端係設置於所述之套盤之凹穴內,所述第二端鄰近第一端之位置具有一凹槽,所述之凹槽可供所述之解門板之凸出面選擇插入嚙合,並於所述之第二端沿軸向設置一彈簧,以壓迫閉鎖桿使其具有由第二端朝向第一端移位之作用;

整體組合時,當壓下所述閉鎖桿使所述閉鎖桿之凹槽與第二端分別嚙合所述解門板之凸出面與所述驅動板之凹槽,以限制所述驅動板之轉動進而限制由轉動桿所連接之外側把手之轉動,令內側把手與解門板對驅動板轉動一適當角位移後,使所述解門板之凸出面與所述閉鎖桿之凹槽脫離,所述閉鎖桿受所述彈簧之推頂,使所述之閉鎖桿之第二端

(2)

與所述驅動板之凹槽脫離，以允許外把手與驅動板被釋放，同時內把手作更進一步的轉動，並一起帶動解門板、驅動板、轉軸桿以及外把手作旋轉運動者。

圖示簡單說明：

第一圖：為本創作之一種可自動解門之鎖體(一)之第一具體實施例之立體分解圖。

第二圖：為本創作之一種可自動解門之鎖體(一)之第一具體實施例之閉鎖狀態時之上視圖。

第三圖：為本創作之一種可自動解門之鎖體(一)之第一具體實施例之第二圖沿3-3剖面線之剖面示意圖。

第四圖：為本創作之一種可自動解門之鎖體(一)之第一具體實施例之解鎖狀態時之上視圖。

第五圖：為本創作之一種可自動解門之鎖體(一)之第一具體實施例之第四圖沿5-5剖面線之剖面示意圖。

第六圖：為本創作之一種可自動解門

之鎖體(一)之第一具體實施例之把手帶動驅動板之上視圖。

第七圖：為本創作之一種可自動解門之鎖體(一)之第二具體實施例之立體分解圖。

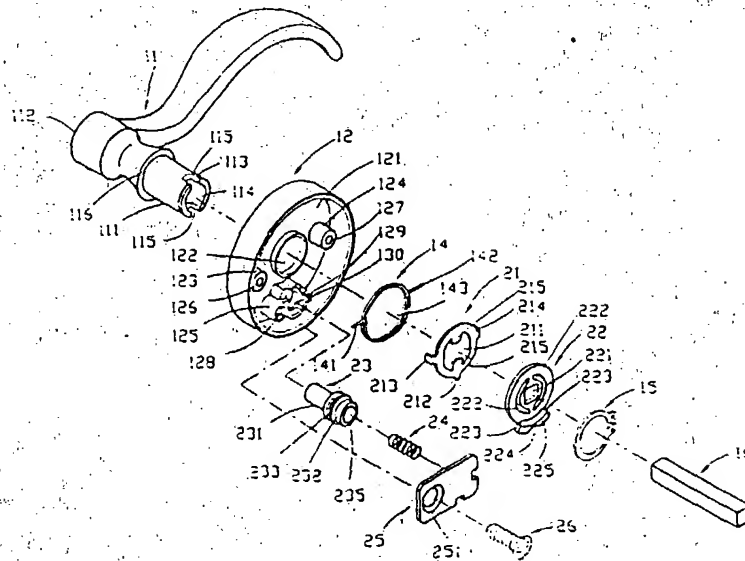
第八圖：為本創作之一種可自動解門之鎖體(一)之第二具體實施例之剖面示意圖。

第九圖：為本創作之一種可自動解門之鎖體(一)之第三具體實施例之立體分解圖。

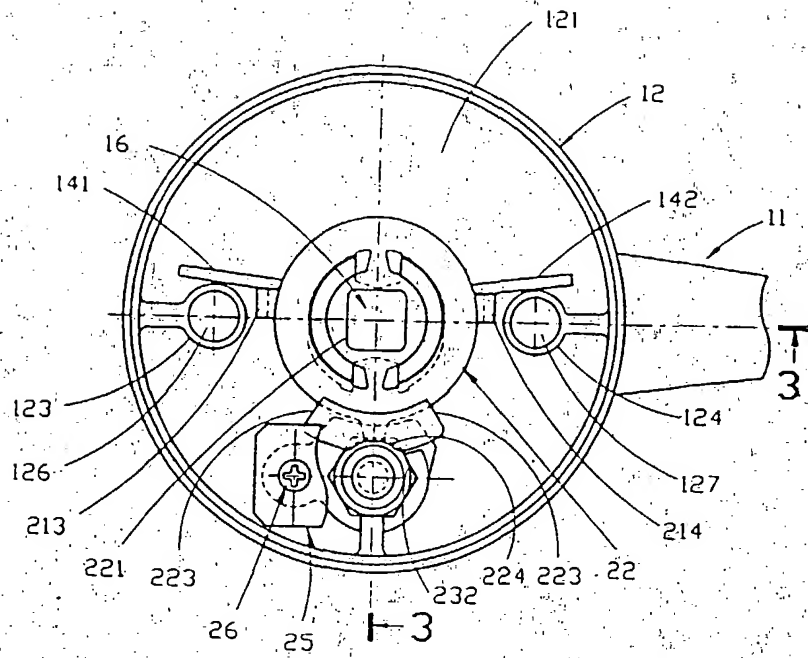
第十圖：為本創作之一種可自動解門之鎖體(一)之第三具體實施例之鉚合狀態示意圖。

第十一圖：為本創作之一種可自動解門之鎖體(一)之第四具體實施例之立體分解圖。

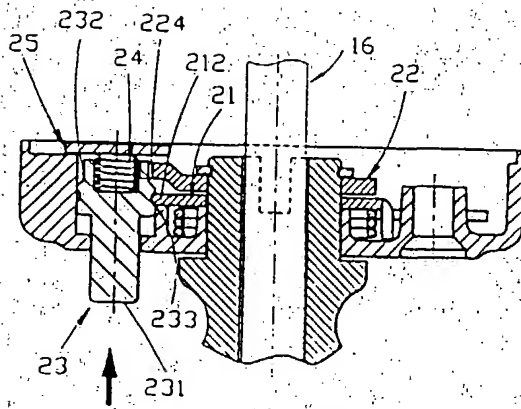
第十二圖：為本創作之一種可自動解門之鎖體(一)之第五具體實施例之立體分解圖。



(3)

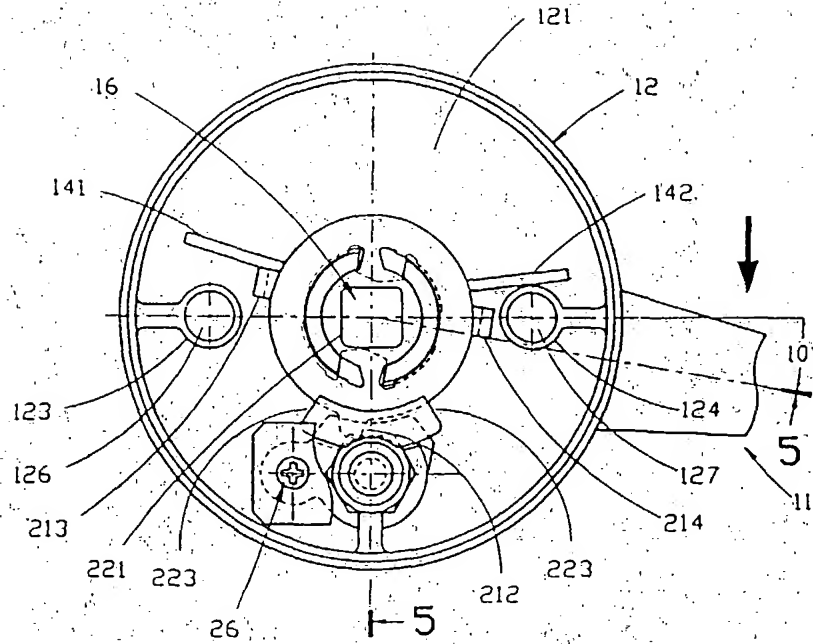


第二圖

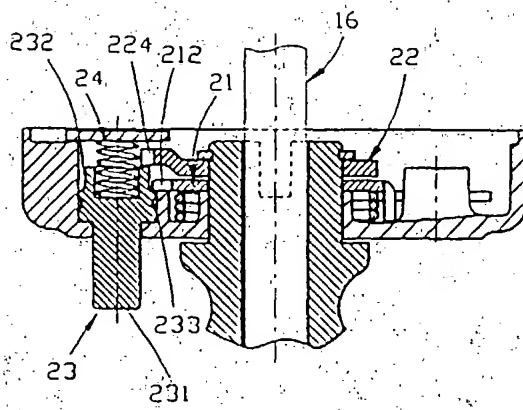


第三圖

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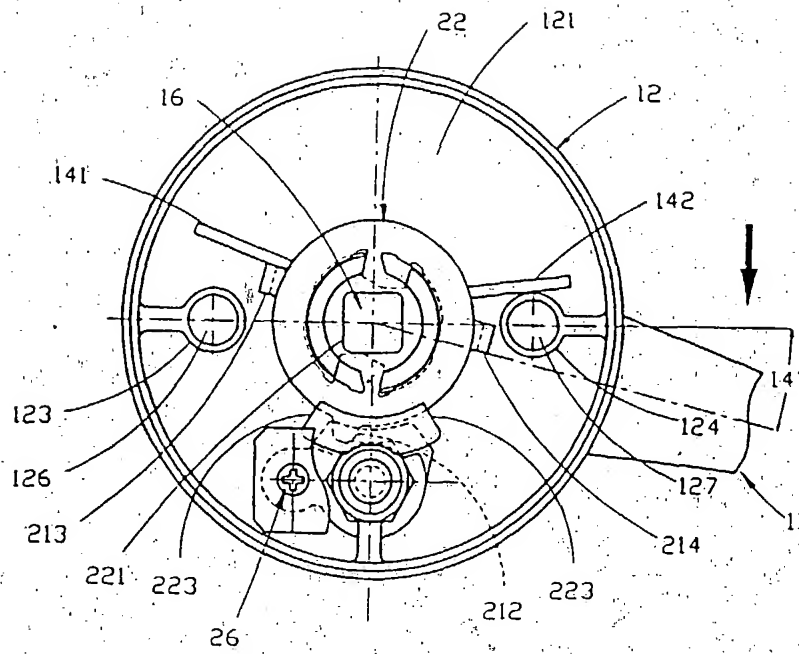


第四圖

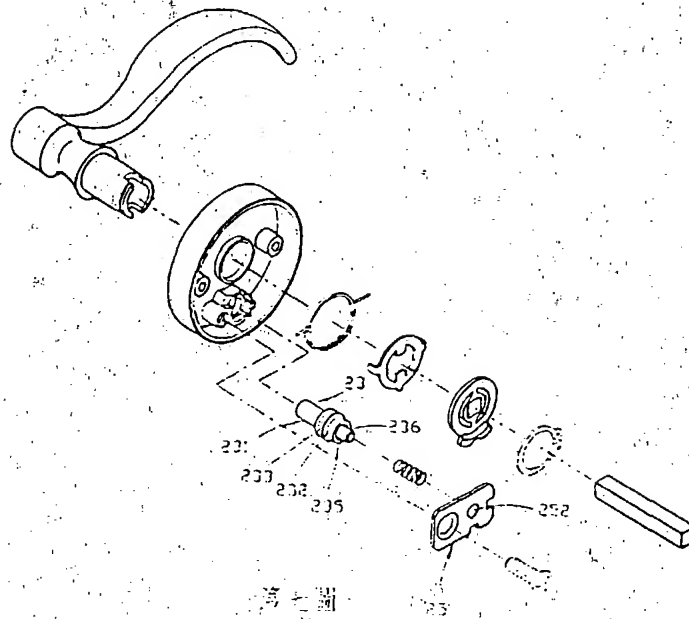


第五圖

(5)

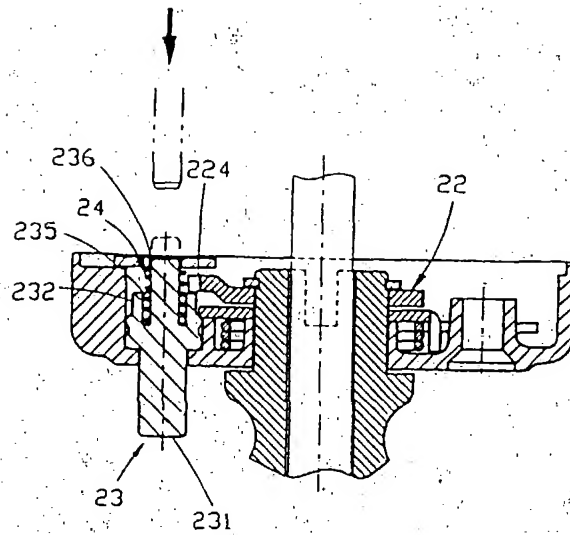


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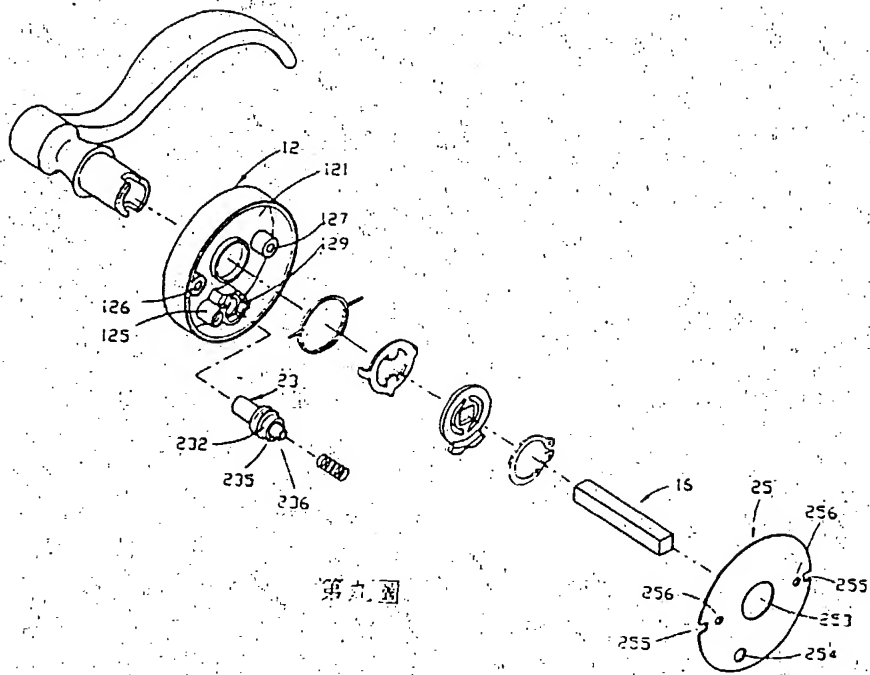


第七圖

(6)

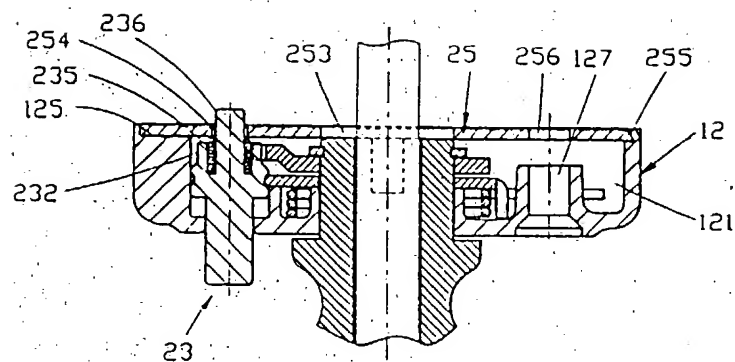


第八圖

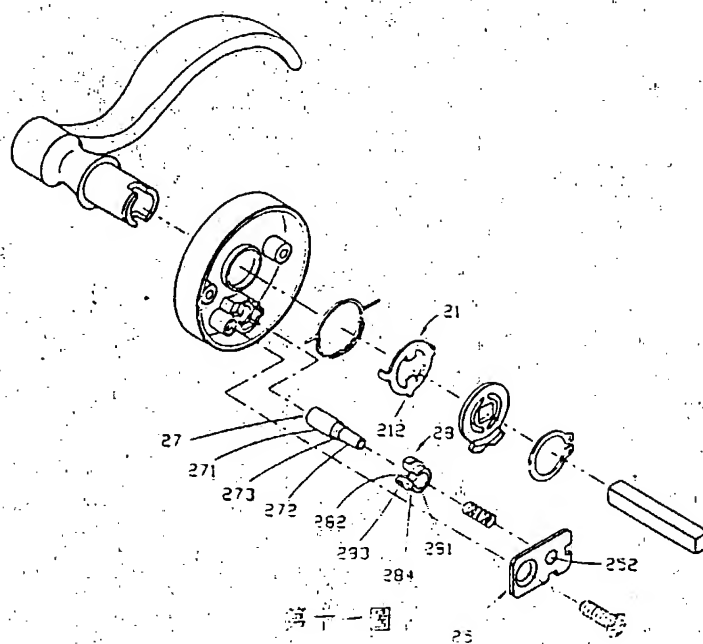


第九圖

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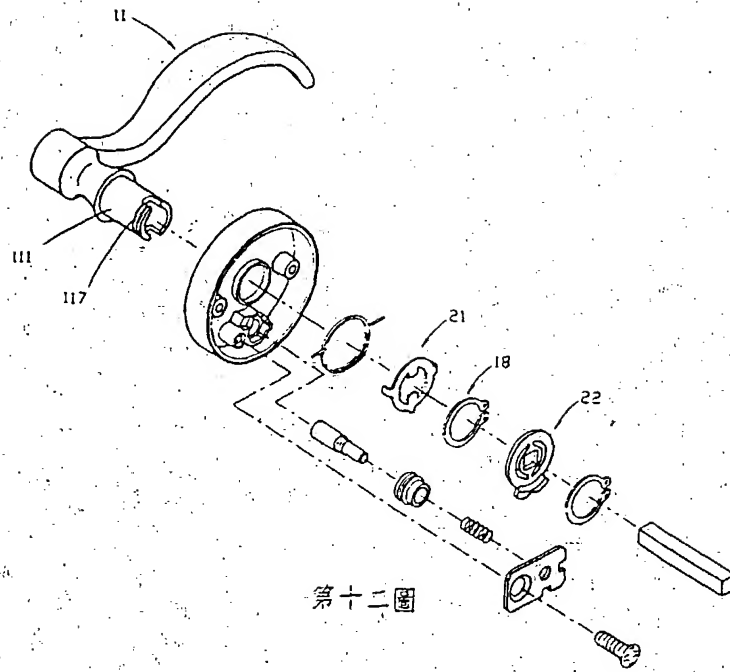
第十圖



第十一圖



(8)



第十二圖

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Mail to : P. O. Box 1869, Taipei

8F, Chung Ting Bldg.,

No. 77, Sec. 2 Tun Hwa S. Rd., Taipei Taiwan R. O. C.

Tel : (886) 2-700-2178 (8 Lines)

Fax : (886) 2-700-2179 (3 Lines)

To: Messrs. Delio &amp; Peterson

No. 85106449

Reference 3

Publication No.: 258270

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Title: Automatic unlatching lock body (1)

## Claims:

Automatic unlatching lock body (1) characterized by a handle, a disk 12 for mounting said handle provided with a unlatching mechanism, said unlatching mechanism including:

a disk spring 14 mounted within a chamber of said disk and placed on said handle, having two ends against a column provided on said disk;

an unlatching plate 21 mounted on said handle and being adjacent to said disk spring, whose periphery has a radially outward projecting surface 212 and two axially arranged first and second driving surfaces, said first driving surface, second driving surface being adjacent to first end and second end of said disk spring respectively such that said unlatching plate allows slight displacement along the direction of the projecting surface to enable the handle to return to the original unused position after acted by external force;

a driving plate 22 having a central hole, said hole being for the interpolation of a rotational rod, at least an arched slot being provided at the outer periphery adjacent to said hole for the passing of said handle and allowing said handle to have a small degree rotational displacement, a recessed slot provided at the periphery;

a latching rod 23 axially movably provided within said disk and adjacent to said driving plate, having a first end 231, a second end 232, said first end passing and projecting to the outside of said disk, said second end being provided in the chamber of said disk, said second end near the first end having a recessed slot 233, said recessed slot being for the selectable interpolating engagement of the projecting surface of said unlatching plate, a spring 24 being provided at said second end in the axial direction to press against the latching rod such that it moves from the second end toward the first end;

after being assembled, while said latching rod is pressed, the recessed slot and the second end of said latching rod engages the projecting surface of said unlatching plate and the recessed slot of said driving plate respectively to limit the rotation of said driving plate and thus the rotation of the outer handle connected by the rotational rod, and with a suitable angular displacement

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of said inner handle and said unlatching plate relative to said driving plate, the projecting surface of said unlatching plate disengages with the recessed slot of said latching rod, said latching rod being pushed by said spring such that the second end of said latching rod disengages with the recessed slot of said driving plate to allow the release of said outer handle and said driving plate, meanwhile, said inner handle further rotates and drives said unlatching plate, said driving plate, said rotational rod and said outer handle into rotation.

#### Brief Description of the Drawings

Fig. 1 shows an exploded drawing of a first embodiment of an automatic unlatching lock body (1) according to the creation;

Fig. 2 shows a top view of a first embodiment of an automatic unlatching lock body (1) under latching state according to the creation;

Fig. 3 shows a schematic sectional view of a first embodiment of an automatic unlatching lock body (1) according to the creation along a sectional line 3-3 of figure 2;

Fig. 4 shows a top view of a first embodiment of an automatic unlatching lock body (2) under unlatching state according to the creation;

Fig. 5 shows a schematic sectional view of a first embodiment of an automatic unlatching lock body (1) according to the creation along a sectional line 5-5 of figure 4;

Fig. 6 shows a top view of a first embodiment of an automatic unlatching lock body (1) according to the creation in which the handle actuate the driving plate;

Fig. 7 shows an exploded drawing of a second embodiment of an automatic unlatching lock body (1) according to the creation;

Fig. 8 shows a schematic sectional view of a second embodiment of an automatic unlatching lock body (1) according to the creation;

Fig. 9 shows an exploded drawing of a third embodiment of an automatic unlatching lock body (1) according to the creation;

Fig. 10 shows a schematic drawing of a third embodiment of an automatic unlatching lock body (1) under riveted state according to the creation;



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Fig. 11 shows an exploded drawing of a fourth embodiment of an automatic unlatching lock body (1) according to the creation;

Fig. 12 shows an exploded drawing of a fifth embodiment of an automatic unlatching lock body (1) according to the creation.